Claims:

1. A medication delivery device,
c h a r a c t e r i z e d in that
it comprises a basis module (1) and one or more replaceable modules (2, 3, 4, 5, 6) each of which is adapted to cooperate mechanically and/or electronically with the basis module to provide a specific function, and the basis module includes resources that are jointly used by the replaceable modules.

2. A medication delivery device according to claim 1,
c h a r a c t e r i z e d in that
the basis module (1) at least comprises means for holding (11) a medication cartridge (12), means for transferring (13, 14, 15) a part of or all of a medication (123) contained in said medication cartridge (12) from said medication cartridge to a user, means for receiving (16) one or more replaceable modules (2, 3, 4, 5, 6), and means for supplying (17, 18) electric energy to the basis module and to the replaceable modules.

3. A medication delivery device according to claim 1 or 2,
c h a r a c t e r i z e d in that
the basis module (1) further comprises electronic means (31) for monitoring and controlling the medication delivery process and for communicating with replaceable modules and with the user.

4. A medication delivery device according to claim 2 or 3,
c h a r a c t e r i z e d in that
said medication cartridge (12) is replaceable and has an outlet (121) and a movable wall (122), which, when displaced in the direction of the outlet (121), forces

the contents (123) out of the cartridge (12) through said outlet (121).

5. A medication delivery device according to claim 4, c h a r a c t e r i z e d in that the outlet (121) of said medication cartridge (12) is connected to a replaceable catheter, and said means for transferring (13, 14, 15) medication to a user is adapted to work in a continuous mode, so that medication (123) is forced out of the cartridge (12) through the outlet of said catheter.

6. A medication delivery device according to any one of claims 2-4, c h a r a c t e r i z e d in that said means for transferring (13, 14, 15) a part of or all of the medication (123) from said medication cartridge (12) to the user at least comprise a piston rod (15) being operable to engage and displace said movable wall (122), electrically driven actuating means (13), and driving means (14) for transferring movement from said electrically driven actuating (13) means to said piston rod (15).

7. A medication delivery device according to any one of claims 2-6, c h a r a c t e r i z e d in that said means for receiving (16) the replaceable modules comprise means for mechanically receiving and fixing said replaceable modules to the basis module, and means for electrically connecting (161) said replaceable modules (2, 3, 4, 5, 6) to electronic means (31, 32) of the basis module (1) and to said means for supplying (17, 18) electric energy.

8. A medication delivery device according to any one of claims 3-7,
c h a r a c t e r i z e d in that
electronic means for monitoring and controlling (31, 32) the medication delivery process and for communicating with replaceable modules and with the user are contained in a replaceable module themselves.

9. A medication delivery device according to any one of claims 3-8,
c h a r a c t e r i z e d in that
said electronic means (31, 32) at least comprise means for controlling a delivered dose by controlling the displacement (33) of the movable wall (122) with said piston rod (15), through a control of the electrically driven actuating means (13) via the driving means (14) for transferring movement from said electrically driven actuating means (13) to said piston rod (15), and means for monitoring the volume of delivered medication corresponding to said displacement (33) of said movable wall (122), means for inputting (312) data from the user, memory means (313) for storing data, means for communicating (311, 32) with the replaceable modules (2, 3, 4, 5, 6), means for controlling (314) the function of the basis module and the replaceable modules, processing means (311) for processing input data, for processing data received from the replaceable modules and for processing data stored in said memory means, and a display (315) for visualizing said data.

10. A medication delivery device according to any one of claims 3-9,
c h a r a c t e r i z e d in that
said electronic means (31) include means for reading (316) an item of information on a replaceable medication cartridge (12) when said cartridge is placed in said

means for holding (11) a replaceable medication cartridge, and means for processing (311) said item of information.

11. A medication delivery device according to any one of claims 3-10,
c h a r a c t e r i z e d in that
said electronic means are adapted to receive a user-specific unit (314) containing user data, functional check procedures and user authorizing procedures.

12. A medication delivery device according to claim 11,
c h a r a c t e r i z e d in that
said user-specific unit (314) is a chip card.

13. A medication delivery device according to any one of claims 1-12,
c h a r a c t e r i z e d in that
the replaceable modules may be chosen from a group consisting of

- a replaceable module (201) containing a system for blood glucose monitoring;
- a replaceable module (202) containing a system for continuously measuring blood glucose;
- a replaceable module (203) containing a modem for allowing communication with a data communications network;
- a replaceable module (204) containing a communications interface for wireless communication with other devices;
- a replaceable module (205) containing fixed wire interfaces for communication with one or more of a personal computer, a camera, a TV-monitor, an acoustic device, a telephone, a mobile telephone;
- a replaceable module (206) containing the functionality of a mobile telephone;

- a replaceable module (207) containing a loudspeaker;
- a replaceable module (208) containing a microphone, a loudspeaker and a processor and software for speech recognition for providing a voice interface;
- a replaceable module (209) containing means for monitoring the temperature of the medication cartridge and its contents;
- a replaceable module (210) containing means for monitoring and controlling the temperature of the medication cartridge and its contents;
- a replaceable module (211) containing means for providing a selectable acoustic or vibratory or optical signal after a certain settable time or on the occurrence of a certain event;
- a replaceable module (212) containing means for vibrating the contents of the medication cartridge, and means for providing an alarm signal indicating the elapsing of a settable time to ensure a proper mixing of the constituents of the medication cartridge;
- a replaceable module (213) containing means for detecting shaking movements of the medication delivery device and means for providing an alarm signal indicating that a certain amount of shaking movements has been performed to ensure a proper mixing of the constituents of the medication cartridge;
- a replaceable module (214) containing software for controlling the medication delivery at settable velocities, controlled time scales, maximum delivered doses, etc.;
- a replaceable module (215) containing software for generating a log of certain user defined events monitored by the medication delivery device;
- a replaceable module (216) containing software for controlling a user ID;
- a replaceable module (217) containing a display adapted for left-handed use;

- a replaceable module (218) containing a display adapted for right-handed use;
- A replaceable module (219) containing means for delivering a specific dose profile to a user through a catheter by controlling said means for transferring the medication in such a way that a continuous pump mode is provided.

14. A medication delivery device according to any one of claims 1-13,
c h a r a c t e r i z e d in that
the basis module and the replaceable modules are provided with replaceable covers (7, 8, 9).

15. A medication delivery device according to any one of claims 1-14,
c h a r a c t e r i z e d in that
the basis module contains functionality that may be locked and made available to the user only by a unique software key and/or a software update.

16. A method of making a medication delivery device,
c h a r a c t e r i z e d in that
it comprises the steps of

- (62) defining and constructing a basis module containing common resources, and
- (63) defining and constructing one or more replaceable modules each of which being adapted to cooperate mechanically and electronically with the basis module to provide a specific function, and
- (64) deciding a configuration of functions according to need, based on a selection of possible functions, and
- (65) composing a device implementing the decided functions by combining the relevant basic module and one or more replaceable modules,

possibly repeating steps (64) and (65), in case of changing functionality needs.

17. A method of making a medication delivery device according to claim 16,
c h a r a c t e r i z e d in that
the steps (64) of deciding a configuration of functions according to need and (65) of composing a device implementing the decided functions are performed by a user of the device.

18. A method of making a medication delivery device according to claim 16,
c h a r a c t e r i z e d in that
the steps (64) of deciding a configuration of functions according to need and (65) of composing a device implementing the decided functions are performed by a producer or supplier of the device.

19. A method of making a medication delivery device according to claim 18,
c h a r a c t e r i z e d in that
it further comprises the step of locking the device so that it cannot be separated into its constituent modules by a user.